

AMENDMENTS TO THE CLAIMS

Claim 1 (Original): A microparticle production method of photo-pulverizing a substance in a solvent of a to-be-treated liquid to produce microparticles of the substance,

the microparticle production method comprising: a microparticulating step of using a to-be-treated body, which contains the substance and with which the solvent of the to-be-treated liquid is made solid, and illuminating a laser light of a predetermined wavelength onto the to-be-treated body to microparticulate the substance in the solvent.

Claim 2 (Original): The production method according to Claim 1, wherein the wavelength of the laser light used in the microparticulating step is not less than 900nm.

Claim 3 (Previously Presented): The production method according to Claim 1, wherein in the microparticulating step, the laser light illumination is performed while moving an illumination position of the laser light onto the to-be-treated body.

Claim 4 (Currently Amended): The production method according to Claim 3, wherein in the microparticulating step, the illumination position is moved by changing [[the]] an optical path of the laser light.

Claim 5 (Previously Presented): The production method according to Claim 1, wherein in the microparticulating step, a result of monitoring a shock wave resulting from the

microparticulation of the substance is referenced to determine an illumination condition of the laser light onto the to-be-treated body.

Claim 6 (Previously Presented): The production method according to Claim 1, wherein the substance is a medicament.

Claim 7 (Previously Presented): The production method according to Claim 1, wherein in the microparticulating step, a solidified body, which is the to-be-treated body containing the substance and with which the solvent is solidified by cooling the to-be-treated liquid, is used, and the substance in the solvent is microparticulated by illuminating the laser light onto the solidified body.

Claim 8 (Original): The production method according to Claim 7, further comprising: a gas eliminating step of eliminating a dissolved gas in the solvent before solidifying the solvent.

Claim 9 (Previously Presented): The production method according to Claim 7, further comprising: a particle dispersing step of dispersing raw material particles of the substance in the solvent before solidifying the solvent.

Claim 10 (Previously Presented): The production method according to Claim 1, wherein in the microparticulating step, a gel raw material is dispersed in the solvent of the to-be-treated liquid, a gel body, which is the to-be-treated body containing the substance and with which the

solvent, containing the gel raw material, is gelled, is used, and the laser light is illuminated onto the gel body to microparticulate the substance in the solvent.

Claim 11 (Original): The production method according to Claim 10, wherein an external-environment responsive type gel raw material is used as the gel raw material.

Claim 12 (Previously Presented): The production method according to Claim 10, wherein in the microparticulating step, an electric field is applied inside the gel body to perform at least one of separation, classification, and enrichment of the microparticles.

Claim 13 (Previously Presented): The production method according to Claim 10, wherein in the microparticulating step, a second gel body that does not contain the substance is connected to the gel body and the microparticles formed in the gel body are moved and stored into the second gel body by electrophoresis.

Claim 14 (Previously Presented): The production method according to Claim 10, wherein in the microparticulating step, the temperature of the gel body is cooled.

Claim 15 (Withdrawn): A microparticle production apparatus that photo-pulverizes a substance in a solvent of a to-be-treated liquid to produce microparticles of the substance, the microparticle production apparatus comprising:

a treatment chamber, containing the to-be-treated liquid;

a cooling means, cooling the to-be-treated liquid and solidifying the solvent to form a solidified body that is a to-be-treated body containing the substance;

a solidified state maintaining means, maintaining the solvent in the solidified state in the solidified body; and

a laser light source, illuminating a laser light of a predetermined wavelength, for microparticulating the substance in the solvent, onto the solidified body contained in the treatment chamber.

Claim 16 (Withdrawn): The production apparatus according to Claim 15, further comprising: a gas eliminating means for eliminating a dissolved gas in the solvent before solidifying the solvent.

Claim 17 (Withdrawn): The production apparatus according to Claim 15, further comprising: a particle dispersing means for dispersing raw material particles of the substance in the solvent before solidifying the solvent.

Claim 18 (Withdrawn): A microparticle production apparatus that photo-pulverizes a substance in a solvent of a to-be-treated liquid to produce microparticles of the substance, the microparticle production apparatus comprising:

a treatment chamber, containing a gel body, which is a to-be-treated body containing the substance and with which the solvent of the to-be-treated liquid, containing a gel raw material, is gelled; and

a laser light source, illuminating a laser light of a predetermined wavelength, for microparticulating the substance in the solvent, onto the gel body contained in the treatment chamber.

Claim 19 (Withdrawn): The production apparatus according to Claim 18, further comprising: an electric field applying means that applies an electric field inside the gel body to perform at least one of separation, classification, and enrichment of the microparticles.

Claim 20 (Withdrawn): The production apparatus according to Claim 18, further comprising: a cooling means that cools the temperature of the gel body; and a cooled state maintaining means that maintains the gel body in the cooled state.

Claim 21 (Withdrawn): The production apparatus according to Claim 15, wherein the wavelength of the laser light illuminated from the laser light source is not less than 900nm.

Claim 22 (Withdrawn): The production apparatus according to Claim 15, wherein illumination of the laser light is performed while moving an illumination position of the laser light onto the to-be-treated body.

Claim 23 (Withdrawn): The production apparatus according to Claim 22, further comprising: an optical path changing means that moves the illumination position by changing an optical path of the laser light from the laser light source to the treatment chamber.

Claim 24 (Withdrawn): The production apparatus according to Claim 15, further comprising: a shock wave monitoring means that monitors a shock wave resulting from microparticulation of the substance.

Claim 25 (Withdrawn): The production apparatus according to Claim 15, wherein the substance is a medicament.

Claim 26 (Withdrawn): Microparticles produced by the microparticle production method according to Claim 1.

Claim 27 (Withdrawn): The production apparatus according to Claim 18, wherein the wavelength of the laser light illuminated from the laser light source is not less than 900nm.

Claim 28 (Withdrawn): The production apparatus according to Claim 18, wherein illumination of the laser light is performed while moving an illumination position of the laser light onto the to-be-treated body.

Claim 29 (Withdrawn): The production apparatus according to Claim 28, further comprising: an optical path changing means that moves the illumination position by changing an optical path of the laser light from the laser light source to the treatment chamber.

Claim 30 (Withdrawn): The production apparatus according to Claim 18, further comprising: a shock wave monitoring means that monitors a shock wave resulting from microparticulation of the substance.

Claim 31 (Withdrawn): The production apparatus according to Claim 18, wherein the substance is a medicament.